

17/07/06-19:32

12 US 08/809,620 (TE20060717a)
Goulven VERNOIS - Reply to Action 02/16/06

- III - Amended Claims under 37 CFR 1.121 (c)

1 (twice amended) - Telescope optical device comprising a mirror and a device actuating the mirror

characterized in that the mirror and the actuating device are free concave membranes without contact between them, or with an other device, and tied by their central parts to the telescope

45 (new) - Telescope optical device according to claim 1,

characterized in that there are two levels of control to give at the free membranous mirror a perfect shape :

10 In a first level, an approximate shape is given to the free actuating membrane by interaction of a magnetic fields tied to the telescope with magnetic fields generated by actuating membrane;

in a second level, a perfect form is given to the free membranous mirror by electrostatic interaction of the free actuating membrane with the free membranous mirror.

15 46 (new) - Telescope optical device according to claim 1,

characterized in that by use of the capacitive coupling between the conductive layer of the mirror and specific electrodes of the actuating membrane, the spread electronic integrated in the actuating membrane acts for the self-stabilisation of the shape of the system mirror-actuating membrane.

20 47 (new) - Telescope optical device according to claim 1,

characterized :

in that, for its folding, the concave membranous mirror is deformed by the formation of concentric circular undulations obtained by a succession of centered distortions alternately concave and convex, altering the pure concave surface of the membranous mirror in a circular surface comprising a series of circular centered waves whose the vertical crest to crest distance is so small as one wishes, in view of the number of waves so great as one wishes.

and in that the thin almost flat object so obtained is wound onto itself, forming a cylinder.

48 (new) - Telescope optical device according to claim 1,

30 characterized :

in that, for its folding, the concave membranous actuating membrane is deformed by the formation of concentric circular undulations obtained by a succession of centered distortions alternately concave and convex, altering the pure concave surface of the actuating membrane in a circular surface comprising a series of circular centered waves whose the vertical crest to crest distance is so small as one wishes, in view of the number of waves so great as one wishes.

and in that the thin almost flat object so obtained is wound onto itself, forming a cylinder.

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Goulven VERNOS - Reply to Action 02/16/06**- IV - AMENDED DRAWINGS****Under 37 CFR 1.121 (d)****NEW SHEET 1/2**

- 5 On immediate anterior figure 1,
a) cancelation of the flanges
b) cancelation of back to back membranes
c) correction of the indices mistakes

Cancelation of the figures 2, 3, 4, 5, 6, 7

- 10 Change of indices

Addition in figure 1 of the former coils 72 (see former figure 1) and former dipole 142 (see former figure 43), generating magnetic field

- 15 Insertion of the former figure 35 showing the actuating membrane, with active indices.

NEW SHEET 2/2

- 20 Addition of a figure 6 showing a cut of a very thin flat folding, in the form of a narrow line.
This very thin folding is the limit of the alternately concave-convex distortions of a concave membrane.

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